



11

1

SEQUENCE LISTING

<110> HIATT, ANDREW C.
HEIN, MICH B.
FITCHEN, JOHN H.

<120> J CHAIN POLYPEPTIDE TARGETING MOLECULE LINKED TO AN IMAGING AGENT

<130> EPI3003C

<140> 10/062,467

<141> 2002-02-05

<150> 08/782,480

<151> 1997-01-10

<150> 09/005,167

<151> 1998-01-09

<160> 93

<170> PatentIn Ver. 2.1

<210> 1

<211> 137

<212> PRT

<213> Homo sapiens

<400> 1

Gln Glu Asp Glu Arg Ile Val Leu Val Asp Asn Lys Cys Lys Cys Ala
1 5 10 15

Arg Ile Thr Ser Arg Ile Ile Arg Ser Ser Glu Asp Pro Asn Glu Asp
20 25 30

Ile Val Glu Arg Asn Ile Arg Ile Ile Val Pro Leu Asn Asn Arg Glu
35 40 45

Asn Ile Ser Asp Pro Thr Ser Pro Leu Arg Thr Arg Pro Val Tyr His
50 55 60

Leu Ser Asp Leu Cys Lys Lys Cys Asp Pro Thr Glu Val Glu Leu Asp
65 70 75 80

Asn Gln Ile Val Thr Ala Thr Gln Ser Asn Ile Cys Asp Glu Asp Ser
85 90 95

Ala Thr Glu Thr Cys Tyr Thr Tyr Asp Arg Asn Lys Cys Tyr Thr Ala
100 105 110

Val Val Pro Leu Val Tyr Gly Gly Glu Thr Lys Met Val Glu Thr Ala
115 120 125

Leu Thr Pro Asp Ala Cys Tyr Pro Asp
130 135

<210> 2
 <211> 135
 <212> PRT
 <213> Mus sp.

<400> 2
 Gln Asp Glu Asn Glu Arg Ile Val Val Asp Asn Lys Cys Lys Cys Ala
 1 5 10 15
 Arg Ile Thr Ser Arg Ile Ile Pro Ser Ala Glu Asp Pro Ser Gln Asp
 20 25 30
 Ile Val Glu Arg Asn Val Arg Ile Ile Val Pro Leu Asn Ser Arg Glu
 35 40 45
 Asn Ile Ser Asp Pro Thr Ser Pro Met Arg Thr Lys Pro Val Tyr His
 50 55 60
 Leu Ser Asp Leu Cys Lys Lys Cys Asp Thr Thr Glu Val Glu Leu Glu
 65 70 75 80
 Asp Gln Val Val Thr Ala Ser Gln Ser Asn Ile Cys Asp Ser Asp Ala
 85 90 95
 Glu Thr Cys Tyr Thr Tyr Asp Arg Asn Lys Cys Tyr Thr Asn Arg Val
 100 105 110
 Lys Leu Ser Tyr Arg Gly Gln Thr Lys Met Val Glu Thr Ala Leu Thr
 115 120 125
 Pro Asp Ser Cys Tyr Pro Asp
 130 135

<210> 3
 <211> 137
 <212> PRT
 <213> Oryctolagus cuniculus

<400> 3
 Asp Asp Glu Ala Thr Ile Leu Ala Asp Asn Lys Cys Met Cys Thr Arg
 1 5 10 15
 Val Thr Ser Arg Ile Ile Pro Ser Thr Glu Asp Pro Asn Glu Asp Ile
 20 25 30
 Val Glu Arg Asn Ile Arg Ile Val Val Pro Leu Asn Asn Arg Glu Asn
 35 40 45
 Ile Ser Asp Pro Thr Ser Pro Leu Arg Arg Asn Pro Val Tyr His Leu
 50 55 60
 Ser Asp Val Cys Lys Lys Cys Asp Pro Val Glu Val Glu Leu Glu Asp
 65 70 75 80
 Gln Val Val Thr Ala Thr Gln Ser Asn Ile Cys Asn Glu Asp Asp Gly
 85 90 95

Val Pro Glu Thr Cys Tyr Met Tyr Asp Arg Asn Lys Cys Tyr Thr Thr
 100 105 110

Met Val Pro Leu Arg Tyr His Gly Glu Thr Lys Met Val Gln Ala Ala
 115 120 125

Leu Thr Pro Asp Ser Cys Tyr Pro Asp
 130 135

<210> 4
 <211> 136
 <212> PRT
 <213> Bos sp.

<400> 4
 Glu Asp Glu Ser Thr Val Leu Val Asp Asn Lys Cys Gln Cys Val Arg
 1 5 10 15

Ile Thr Ser Arg Ile Ile Arg Asp Pro Asp Asn Pro Ser Glu Asp Ile
 20 25 30

Val Glu Arg Asn Ile Arg Ile Ile Val Pro Leu Asn Thr Arg Glu Asn
 35 40 45

Ile Ser Asp Pro Thr Ser Pro Leu Arg Thr Glu Pro Lys Tyr Asn Leu
 50 55 60

Ala Asn Leu Cys Lys Lys Cys Asp Pro Thr Glu Ile Glu Leu Asp Asn
 65 70 75 80

Gln Val Phe Thr Ala Ser Gln Ser Asn Ile Cys Pro Asp Asp Asp Tyr
 85 90 95

Ser Glu Thr Cys Tyr Thr Tyr Asp Arg Asn Lys Cys Tyr Thr Thr Leu
 100 105 110

Val Pro Ile Thr His Arg Gly Val Thr Arg Met Val Lys Ala Thr Leu
 115 120 125

Thr Pro Asp Ser Cys Tyr Pro Asp
 130 135

<210> 5
 <211> 119
 <212> PRT
 <213> Rana sp.

<220>
 <221> MOD_RES
 <222> (47)
 <223> Variable amino acid

<220>
 <221> MOD_RES
 <222> (88)..(89)
 <223> Variable amino acid

<220>
 <221> MOD_RES
 <222> (91)
 <223> Variable amino acid

<400> 5
 Glu Gln Glu Tyr Ile Leu Ala Asn Asn Lys Cys Lys Cys Val Lys Ile
 1 5 10 15
 Ser Ser Arg Phe Val Pro Ser Thr Glu Arg Pro Gly Glu Glu Ile Leu
 20 25 30
 Glu Arg Asn Ile Gln Ile Thr Ile Pro Thr Ser Ser Arg Met Xaa Ile
 35 40 45
 Ser Asp Pro Tyr Ser Pro Leu Arg Thr Gln Pro Val Tyr Asn Leu Trp
 50 55 60
 Asp Ile Cys Gln Lys Cys Asp Pro Val Gln Leu Glu Ile Gly Gly Ile
 65 70 75 80
 Pro Val Leu Ala Ser Gln Pro Xaa Xaa Ser Xaa Pro Asp Asp Glu Cys
 85 90 95
 Tyr Thr Thr Glu Val Asn Phe Lys Lys Lys Val Pro Leu Thr Pro Asp
 100 105 110
 Ser Cys Tyr Glu Tyr Ser Glu
 115

<210> 6
 <211> 128
 <212> PRT
 <213> Lumbricus sp.

<400> 6
 Asn Lys Cys Met Cys Thr Arg Val Thr Ala Arg Ile Arg Gly Thr Arg
 1 5 10 15
 Glu Asp Pro Asn Glu Asp Ile Val Glu Arg Tyr Ile Arg Ile Asn Val
 20 25 30
 Pro Leu Lys Asn Arg Gly Asn Ile Ser Asp Pro Thr Ser Pro Leu Arg
 35 40 45
 Asn Gln Pro Val Tyr His Leu Ser Pro Ser Cys Lys Lys Cys Asp Pro
 50 55 60
 Tyr Glu Asp Gly Val Val Thr Ala Thr Glu Thr Asn Ile Cys Tyr Pro
 65 70 75 80
 Asp Gln Gly Val Pro Gln Ser Cys Arg Asp Tyr Cys Pro Glu Leu Asp
 85 90 95
 Arg Asn Lys Cys Tyr Thr Val Leu Val Pro Pro Gly Tyr Thr Gly Glu
 100 105 110

Thr Lys Met Val Gln Asn Ala Leu Thr Pro Asp Ala Cys Tyr Pro Asp
 115 120 125

<210> 7
 <211> 421
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> (1)..(414)

<220>
 <221> sig_peptide
 <222> (1)..(6)

<220>
 <221> mat_peptide
 <222> (7)..(414)

<400> 7
 gat cag gaa gat gaa cgt att gtt ctg gtt gac aac aag tgc aag tgt 48
 Asp Gln Glu Asp Glu Arg Ile Val Leu Val Asp Asn Lys Cys Lys Cys
 -1 1 5 10
 gct cgt att act tct aga atc atc cgt agc tca gag gac cca aat gaa 96
 Ala Arg Ile Thr Ser Arg Ile Ile Arg Ser Ser Glu Asp Pro Asn Glu
 15 20 25 30
 gat ata gtc gaa cgt aac atc cgt atc atc gtc cca ctg aat aac cgg 144
 Asp Ile Val Glu Arg Asn Ile Arg Ile Ile Val Pro Leu Asn Asn Arg
 35 40 45
 gag aat atc tca gat cct aca agt ccg ttg cgc aca cgc ttc gta tac 192
 Glu Asn Ile Ser Asp Pro Thr Ser Pro Leu Arg Thr Arg Phe Val Tyr
 50 55 60
 cac ctg tca gat ctg tgt aag aag tgt gat cca aca gag gta gag ctg 240
 His Leu Ser Asp Leu Cys Lys Lys Cys Asp Pro Thr Glu Val Glu Leu
 65 70 75
 gac aat cag ata gtc act gcg act caa agc aac att tgc gat gag gac 288
 Asp Asn Gln Ile Val Thr Ala Thr Gln Ser Asn Ile Cys Asp Glu Asp
 80 85 90
 agc gct aca gaa acc tgc agc acc tac gat agg aac aaa tgc tac acg 336
 Ser Ala Thr Glu Thr Cys Ser Thr Tyr Asp Arg Asn Lys Cys Tyr Thr
 95 100 105 110
 gcc gtg gtt ccg ctc gtg tat ggt gga gag aca aaa atg gtg gaa act 384
 Ala Val Val Pro Leu Val Tyr Gly Gly Glu Thr Lys Met Val Glu Thr
 115 120 125
 gcc ctt acg ccc gat gca tgc tat ccg gac tgaattc 421
 Ala Leu Thr Pro Asp Ala Cys Tyr Pro Asp
 130 135

<210> 8
 <211> 215
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> (1)..(213)

<400> 8
 gat cag aag tgc aag tgt gct cgt att act tct aga atc atc cgt agc 48
 Asp Gln Lys Cys Lys Cys Ala Arg Ile Thr Ser Arg Ile Ile Arg Ser
 1 5 10 15
 tca gag gac cca aat gaa gat ata gtc gaa cgt aac atc cgt atc atc 96
 Ser Glu Asp Pro Asn Glu Asp Ile Val Glu Arg Asn Ile Arg Ile Ile
 20 25 30
 gtc cca ctg aat aac cgg gag aat atc tca gat cct aca agt ccg ttg 144
 Val Pro Leu Asn Asn Arg Glu Asn Ile Ser Asp Pro Thr Ser Pro Leu
 35 40 45
 cgc aca cgc ttc gta tac cac ctg tca gat ctg tgt aag aag gat gag 192
 Arg Thr Arg Phe Val Tyr His Leu Ser Asp Leu Cys Lys Lys Asp Glu
 50 55 60
 gac agc gct aca gaa acc tgc tg 215
 Asp Ser Ala Thr Glu Thr Cys
 65 70

<210> 9
 <211> 140
 <212> DNA
 <213> Homo sapiens

<400> 9
 ctagaatcat ccgtagctca gaggacccaa atgaagatat agtcgaacgt aacatccgta 60
 tcatcgtccc actgaataac cgggagaata tctcagatcc tacaagtccg ttgcgcacac 120
 gcttcgtata ccacctgtca 140

<210> 10
 <211> 31
 <212> DNA
 <213> Homo sapiens

<400> 10
 gatcagaagt gcaagtgtgc tcgtattact t 31

<210> 11
 <211> 44

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> (1)..(42)

<400> 11

gat	ctg	tgt	aag	aag	gat	gaa	gat	tcc	gct	aca	gaa	acc	tgc	tg	44
Asp	Leu	Cys	Lys	Lys	Asp	Glu	Asp	Ser	Ala	Thr	Glu	Thr	Cys		
1				5				10							

<210> 12

<211> 109

<212> DNA

<213> Homo sapiens

<400> 12

gcacctacga	taggaacaaa	tgctacacgg	ccgtgggtcc	gctcgtgtat	ggaggagaga	60
caaaaatggt	ggaaactgcc	cttacgcccg	atgcatgcta	ccctgactg		109

<210> 13

<211> 286

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> (1)..(279)

<400> 13

gat	cag	aag	tgc	aag	tgt	gct	cgt	att	act	tct	aga	atc	atc	cgt	agc	48
Asp	Gln	Lys	Cys	Lys	Cys	Ala	Arg	Ile	Thr	Ser	Arg	Ile	Ile	Arg	Ser	
1				5				10						15		
tca	gag	gac	cca	aat	gaa	gat	ata	gtc	gaa	cgt	aac	atc	cgt	atc	atc	96
Ser	Glu	Asp	Pro	Asn	Glu	Asp	Ile	Val	Glu	Arg	Asn	Ile	Arg	Ile	Ile	
			20					25					30			
gtc	cca	ctg	aat	aac	cgg	gag	aat	atc	tca	gat	cct	aca	agt	ccg	ttg	144
Val	Pro	Leu	Asn	Asn	Arg	Glu	Asn	Ile	Ser	Asp	Pro	Thr	Ser	Pro	Leu	
			35				40					45				
cgc	aca	cgc	ttc	gta	tac	cac	ctg	tca	gat	ctg	tgt	aag	aag	tgt	gat	192
Arg	Thr	Arg	Phe	Val	Tyr	His	Leu	Ser	Asp	Leu	Cys	Lys	Lys	Cys	Asp	
	50					55					60					
cca	aca	gag	gta	gag	ctg	gac	aat	cag	ata	gtc	act	gcg	act	caa	agc	240
Pro	Thr	Glu	Val	Glu	Leu	Asp	Asn	Gln	Ile	Val	Thr	Ala	Thr	Gln	Ser	
	65				70				75					80		
aac	att	tgc	gat	gag	gac	agc	gct	aca	gaa	acc	tgc	tac	tgaattc			286
Asn	Ile	Cys	Asp	Glu	Asp	Ser	Ala	Thr	Glu	Thr	Cys	Tyr				
				85					90							

<210> 14
 <211> 105
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> (1)..(105)

<400> 14
 gat ctg tgt aag aag tgt gat cca aca gag gta gag ctg gac aat cag 48
 Asp Leu Cys Lys Lys Cys Asp Pro Thr Glu Val Glu Leu Asp Asn Gln
 1 5 10 15
 ata gtc act gcg act caa agc aac att tgc gat gag gac agc gct aca 96
 Ile Val Thr Ala Thr Gln Ser Asn Ile Cys Asp Glu Asp Ser Ala Thr
 20 25 30
 gaa acc tgc 105
 Glu Thr Cys
 35

<210> 15
 <211> 61
 <212> DNA
 <213> Homo sapiens

<400> 15
 gatcaggaag atgaacgtat tgttctgggt gacaacaagt gcaagtgtgc tcgtattact 60
 t 61

<210> 16
 <211> 198
 <212> DNA
 <213> Homo sapiens

<400> 16
 gcgatgacga cgataaggcc caaacggaga cctgtactgt tgcgcctcgt gaacggcaaa 60
 actgcggatt cccgggagta acaccctctc agtgcgctaa taaaggctgc tgttttgatg 120
 acacggtacg gggcgttccg tgggtgcttct accccaatac aattgacgtt ccgcctgaag 180
 aagagtgcga gttttaag 198

<210> 17
 <211> 138
 <212> PRT
 <213> Homo sapiens

<400> 17
 Asp Gln Glu Asp Glu Arg Ile Val Leu Val Asp Asn Lys Cys Lys Cys
 -1 1 5 10
 Ala Arg Ile Thr Ser Arg Ile Ile Arg Ser Ser Glu Asp Pro Asn Glu
 15 20 25 30

Asp	Ile	Val	Glu	Arg	Asn	Ile	Arg	Ile	Ile	Val	Pro	Leu	Asn	Asn	Arg	
				35			40				45					
Glu	Asn	Ile	Ser	Asp	Pro	Thr	Ser	Pro	Leu	Arg	Thr	Arg	Phe	Val	Tyr	
				50			55				60					
His	Leu	Ser	Asp	Leu	Cys	Lys	Lys	Cys	Asp	Pro	Thr	Glu	Val	Glu	Leu	
				65			70				75					
Asp	Asn	Gln	Ile	Val	Thr	Ala	Thr	Gln	Ser	Asn	Ile	Cys	Asp	Glu	Asp	
				80			85				90					
Ser	Ala	Thr	Glu	Thr	Cys	Ser	Thr	Tyr	Asp	Arg	Asn	Lys	Cys	Tyr	Thr	
				95			100				105				110	
Ala	Val	Val	Pro	Leu	Val	Tyr	Gly	Gly	Glu	Thr	Lys	Met	Val	Glu	Thr	
				115			120				125					
Ala	Leu	Thr	Pro	Asp	Ala	Cys	Tyr	Pro	Asp							
				130			135									

```
<210> 18
<211> 71
<212> PRT
<213> Homo sapiens
```

```

<400> 18
Asp Gln Lys Cys Lys Cys Ala Arg Ile Thr Ser Arg Ile Ile Arg Ser
  1                               10                               15

Ser Glu Asp Pro Asn Glu Asp Ile Val Glu Arg Asn Ile Arg Ile Ile
                20                25                30

Val Pro Leu Asn Asn Arg Glu Asn Ile Ser Asp Pro Thr Ser Pro Leu
          35                      40                      45

Arg Thr Arg Phe Val Tyr His Leu Ser Asp Leu Cys Lys Lys Asp Glu
  50                      55                      60

Asp Ser Ala Thr Glu Thr Cys
  65                      70

```

```
<210> 19
<211> 49
<212> PRT
<213> Homo sapiens
```

<400> 19
Ser Arg Ile Ile Arg Ser Ser Glu Asp Pro Asn Glu Asp Ile Val Glu
1 5 10 15
Arg Asn Ile Arg Ile Ile Val Pro Leu Asn Asn Arg Glu Asn Ile Ser
20 25 30

10

Asp Pro Thr Ser Pro Leu Arg Thr Arg Phe Val Tyr His Leu Ser Asp
35 40 45

Leu

<210> 20
<211> 12
<212> PRT
<213> Homo sapiens

<400> 20
Asp Gln Lys Cys Lys Cys Ala Arg Ile Thr Ser Arg
1 5 10

<210> 21
<211> 14
<212> PRT
<213> Homo sapiens

<400> 21
Asp Leu Cys Lys Lys Asp Glu Asp Ser Ala Thr Glu Thr Cys
1 5 10

<210> 22
<211> 36
<212> PRT
<213> Homo sapiens

<400> 22
Ser Thr Tyr Asp Arg Asn Lys Cys Tyr Thr Ala Val Val Pro Leu Val
1 5 10 15

Tyr Gly Gly Glu Thr Lys Met Val Glu Thr Ala Leu Thr Pro Asp Ala
20 25 30

Cys Tyr Pro Asp
35

<210> 23
<211> 93
<212> PRT
<213> Homo sapiens

<400> 23
Asp Gln Lys Cys Lys Cys Ala Arg Ile Thr Ser Arg Ile Ile Arg Ser
1 5 10 15

Ser Glu Asp Pro Asn Glu Asp Ile Val Glu Arg Asn Ile Arg Ile Ile
20 25 30

Val Pro Leu Asn Asn Arg Glu Asn Ile Ser Asp Pro Thr Ser Pro Leu
35 40 45

Arg Thr Arg Phe Val Tyr His Leu Ser Asp Leu Cys Lys Lys Cys Asp
 50 55 60

Pro Thr Glu Val Glu Leu Asp Asn Gln Ile Val Thr Ala Thr Gln Ser
 65 70 75 80

Asn Ile Cys Asp Glu Asp Ser Ala Thr Glu Thr Cys Tyr
 85 90

<210> 24
 <211> 35
 <212> PRT
 <213> Homo sapiens

<400> 24
 Asp Leu Cys Lys Lys Cys Asp Pro Thr Glu Val Glu Leu Asp Asn Gln
 1 5 10 15

Ile Val Thr Ala Thr Gln Ser Asn Ile Cys Asp Glu Asp Ser Ala Thr
 20 25 30

Glu Thr Cys
 35

<210> 25
 <211> 22
 <212> PRT
 <213> Homo sapiens

<400> 25
 Asp Gln Glu Asp Glu Arg Ile Val Leu Val Asp Asn Lys Cys Lys Cys
 1 5 10 15

Ala Arg Ile Thr Ser Arg
 20

<210> 26
 <211> 66
 <212> PRT
 <213> Homo sapiens

<400> 26
 Cys Ser Asp Asp Asp Asp Lys Ala Gln Thr Glu Thr Cys Thr Val Ala
 1 5 10 15

Pro Arg Glu Arg Gln Asn Cys Gly Phe Pro Gly Val Thr Pro Ser Gln
 20 25 30

Cys Ala Asn Lys Gly Cys Cys Phe Asp Asp Thr Val Arg Gly Val Pro
 35 40 45

Trp Cys Phe Tyr Pro Asn Thr Ile Asp Val Pro Pro Glu Glu Glu Cys
 50 55 60

Glu Phe
65

<210> 27
<211> 421
<212> DNA
<213> Homo sapiens

<400> 27
gaattcagtc cggatagcat gcatcgggcg taagggcagt ttccaccatt tttgtctctc 60
caccatacac gagcggaacc acggccgtgt agcatttggt cctatcgtag gtgctgcagg 120
tttctgtagc gctgtcctca tcgcaaagt tgctttgagt cgcaagtgact atctgattgt 180
ccagctctac ctctgttggg tcacacttct tacacagatc tgacagggtg tatacgaagc 240
gtgtgcgcaa cggacttgta ggatctgaga tattctcccg gttattcagt gggacgatga 300
tacggatggt acgttcgact atatcttcat ttgggtcctc tgagctacgg atgattctag 360
aagtaatacg agcacacttg cacttgttgt caaccagaac aatacgttca tcttcctgat 420
c 421

<210> 28
<211> 219
<212> DNA
<213> Homo sapiens

<400> 28
aattcagcag gtttctgtag cgctgtcctc atccttctta cacagatctg acagggtggta 60
tacgaagcgt gtgcgcaacg gacttgtagg atctgagata ttctcccggg tattcagtggt 120
gacgatgata cggatgttac gttcgactat atcttcattt gggtcctctg agctacggat 180
gattctagaa gtaatacgag cacacttgca cttctgata 219

<210> 29
<211> 140
<212> DNA
<213> Homo sapiens

<400> 29
gatctgacag gtggtatacg aagcgtgtgc gcaacggact tgtaggatct gagatattct 60
cccggttatt cagtgggacg atgatacggg tgttacgttc gactatatct tcatttgggt 120
cctctgagct acggatgatt 140

<210> 30
<211> 31
<212> DNA
<213> Homo sapiens

<400> 30
ctagaagtaa tacgagcaca cttgcacttc t 31

<210> 31
<211> 44
<212> DNA
<213> Homo sapiens

<400> 31
aattcagcag gtttctgtag cggactcttc atccttctta caca 44

<210> 32
<211> 117
<212> DNA
<213> Homo sapiens

<400> 32
aattcagtcg gggtagcatg catcgggcgt aagggcagtt tccaccattt ttgtctctcc 60
accatacacg agcgggaacca cggccgtgta gcattttgttc ctatcgtagg tgctgca 117

<210> 33
<211> 282
<212> DNA
<213> Homo sapiens

<400> 33
tcagtagcag gtttctgtag cgctgtcctc atcgcaaagt ttgctttgag tcgcagtgac 60
tatctgattg tccagctcta cctctgttgg atcacacttc ttacacagat ctgacagggtg 120
gtatacgaag cgtgtgcgca acggacttgt aggatctgag atattctccc ggttattcag 180
tgggacgatg atacggatgt tacgttcgac tatatcttca tttgggtcct ctgagctacg 240
gatgattcta gaagtaatac gagcacactt gcacttctga tc 282

<210> 34
<211> 105
<212> DNA
<213> Homo sapiens

<400> 34
gcaggtttct gtagcgctgt cctcatcgca aatgttgctt tgagtcgcag tgactatctg 60
attgtccagc tctacctctg ttggatcaca cttcttacac agatc 105

<210> 35
<211> 61
<212> DNA
<213> Homo sapiens

<400> 35
ctagaagtaa tacgagcaca cttgcacttg ttgtcaacca gaacaatacg ttcattcttc 60
t 61

<210> 36
<211> 205
<212> DNA
<213> Homo sapiens

<400> 36
aattcttaaa actcgcactc ttcttcaggc ggaacgtcaa ttgtattggg gtagaagcac 60
cacggaagcc cgtaccgtg tcatcaaaac agcagccttt attagcgcac tgagaggggtg 120
ttactcccgg gaatccgcag ttttgccgtt cagcaggcgc aacagtacag gtctccgttt 180
gggccttata gtcgtcatcg ctgca 205

<210> 37
 <211> 13
 <212> PRT
 <213> Homo sapiens

<400> 37
 Asp Gln Glu Asp Glu Arg Ile Val Leu Val Asp Asn Lys
 1 5 10

<210> 38
 <211> 7
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Illustrative
 peptide

<400> 38
 Glu Asn Leu Tyr Phe Gln Ser
 1 5

<210> 39
 <211> 11
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Linker peptide

<400> 39
 Lys Ala His Lys Val Asp Met Val Gln Tyr Thr
 1 5 10

<210> 40
 <211> 4
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Linker peptide

<400> 40
 Val Gln Tyr Thr
 1

<210> 41
 <211> 6
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Linker peptide

<400> 41
 Glu Lys Ala Val Ala Asp
 1 5

<210> 42
 <211> 131
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> (1)..(78)

<400> 42
 atg aaa ttc tta gtc aac gtt gcc ctt ttt atg gtc gta tac att tct 48
 Met Lys Phe Leu Val Asn Val Ala Leu Phe Met Val Val Tyr Ile Ser
 1 5 10 15

 tac atc tat gcg gat ccg agc tcg agt gct ctagatctgc agctggtacc 98
 Tyr Ile Tyr Ala Asp Pro Ser Ser Ser Ala
 20 25

 atggaattcg aagcttggag tcgactctgc tga 131

<210> 43
 <211> 26
 <212> PRT
 <213> Homo sapiens

<400> 43
 Met Lys Phe Leu Val Asn Val Ala Leu Phe Met Val Val Tyr Ile Ser
 1 5 10 15

 Tyr Ile Tyr Ala Asp Pro Ser Ser Ser Ala
 20 25

<210> 44
 <211> 4
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Intracellular
 targeting signal

<400> 44
 Lys Asp Glu Leu
 1

<210> 45
 <211> 16
 <212> PRT
 <213> Homo sapiens

ctagaagtaa tacgagcaca cttgcacttc t 31

<210> 50
 <211> 61
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 oligonucleotide

<400> 50
 gatcaggaag atgaacgtat tggtctggtt gacaacaagt gcaagtcgc tcgtattact 60
 t 61

<210> 51
 <211> 61
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 oligonucleotide

<400> 51
 ctagaagtaa tacgagcgga cttgcacttg ttgtcaacca gaacaatacg ttcattctcc 60
 t 61

<210> 52
 <211> 61
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 oligonucleotide

<400> 52
 gatcaggaag atgaacgtat tggtctggtt gacaacaagt gcaagggtgc tcgtattact 60
 t 61

<210> 53
 <211> 61
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 oligonucleotide

<400> 53
 ctagaagtaa tacgagcaac cttgcacttg ttgtcaacca gaacaatacg ttcattctcc 60
 t 61

<210> 54
 <211> 47
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 oligonucleotide

<400> 54
 ctagaatcat ccgtagctca gaggacccaa atgaagatat agtcgaa 47

<210> 55
 <211> 58
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 oligonucleotide

<400> 55
 gatacggatg ttacgttcga ctatatcttc atttgggtcc tctgagctac ggatgatt 58

<210> 56
 <211> 49
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 oligonucleotide

<400> 56
 cgtaacatcc gtatcatcgt ccactgaat aaccgggaga atatctcag 49

<210> 57
 <211> 49
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 oligonucleotide

<400> 57
 cgtaacatcc gtatcatcgt ccactgaat aaccgggagc acatctcag 49

<210> 58
 <211> 49
 <212> DNA
 <213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
oligonucleotide

<400> 58

acggacttgt aggatctgag atattctccc ggttattcag tgggacgat

49

<210> 59

<211> 49

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
oligonucleotide

<400> 59

acggacttgt aggatctgag atgtgctccc ggttattcag tgggacgat

49

<210> 60

<211> 44

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
oligonucleotide

<400> 60

atcctacaag tccgttgccg acacgcttcg tataccacct gtca

44

<210> 61

<211> 33

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
oligonucleotide

<400> 61

gatctgacag gtggtatacg aagcgtgtgc gca

33

<210> 62

<211> 60

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
oligonucleotide

<400> 62

gatctgtgta agaagtgtga tccaacagag gtagagctgg acaatcagat agtcactgca 60

<210> 63
 <211> 44
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 oligonucleotide

<400> 63
 gatctgtgta agaaggatga ggacagcgct acagaaacct gctg 44

<210> 64
 <211> 44
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 oligonucleotide

<400> 64
 aattcagcag gtttctgtag cgctgtcctc atccttctta caca 44

<210> 65
 <211> 62
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 oligonucleotide

<400> 65
 gatctgtgta agaaggatga ggacagcgct acagaaacct gctacgagaa ggatgagctg 60
 tg 62

<210> 66
 <211> 62
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 oligonucleotide

<400> 66
 aattcacagc tcatccttcg cgtcgcaggt ttctgtagcg ctgtcctcat ccttcttaca 60
 ca 62

<210> 67
 <211> 59

<212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 oligonucleotide

<400> 67
 gatctgtgta agaagtctga tatcgatgaa gattccgcta cagaaacctg cagcacatg 59

<210> 68
 <211> 59
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 oligonucleotide

<400> 68
 aattcatgtg ctgcagggtt ctgtagcgga atcttcatcg atatcagact tcttacaca 59

<210> 69
 <211> 64
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 oligonucleotide

<400> 69
 gatctgtcta agaagtctga tatcgatgaa gattacagat tcttcagact atagctactt 60
 ctaa 64

<210> 70
 <211> 30
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 oligonucleotide

<400> 70
 aatcttcatc gatatcagac ttcttagaca 30

<210> 71
 <211> 64
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic

oligonucleotide

<400> 71
 gatctgggta agaagtctga tatcgatgaa gattaccaat tcttcagact atagctactt 60
 ctaa 64

<210> 72
 <211> 30
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 oligonucleotide

<400> 72
 aatcttcacg gatatcagac ttcttaacca 30

<210> 73
 <211> 41
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 oligonucleotide

<400> 73
 attgtccagc tctacctctg ttggatcaca cttcttacac a 41

<210> 74
 <211> 46
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 oligonucleotide

<400> 74
 actcaaagca acatttgcca tgaggacagc gctacagaaa cctgca 46

<210> 75
 <211> 57
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 oligonucleotide

<400> 75
 gggtttctgta gcgctctgct catcgcaaat gttgctttga gtcgcagtga ctatctg 57

<210> 76
 <211> 59
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 oligonucleotide

<400> 76
 gcacctacga taggaacaaa tgctacacgg ccgtgggtcc gctcgtgtat ggtggagag 59

<210> 77
 <211> 48
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 oligonucleotide

<400> 77
 gagcggaacc acggccgtgt agcatttggt cctatcgtag gtgctgca 48

<210> 78
 <211> 50
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 oligonucleotide

<400> 78
 acaaaaatgg tggaaactgc ccttacgccc gatgcatgct atccggactg 50

<210> 79
 <211> 69
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 oligonucleotide

<400> 79
 aattcagtcc ggatagcatg catcgggcgt aagggcagtt tccaccattt ttgtctctcc 60
 accatacac 69

<210> 80
 <211> 62
 <212> DNA
 <213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
oligonucleotide

<400> 80

acaaaaatgg tggaaactgc ccttacgccc gatgcatgct atccggacaa ggatgaattg 60
tg 62

<210> 81

<211> 81

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
oligonucleotide

<400> 81

aattcacaat tcatccttgt ccggatagca tgcacgccc gtaagggcag tttccaccat 60
ttttgtctct ccaccataca c 81

<210> 82

<211> 88

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
oligonucleotide

<400> 82

gatcaggctg ctgccatcca agacccgagg ctgttcgccg aagagaaggc cgtcgctgac 60
tccaagtga agtgtgctcg tattactt 88

<210> 83

<211> 88

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
oligonucleotide

<400> 83

ctagaagtaa tacgagcaca cttgcacttg gagtcagcga cggccttctc ttcggcgaac 60
agcctcgggt cttggatggc agcgacct 88

<210> 84

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
targeting peptide

<400> 84

Cys Ala Ala Pro Lys Lys Lys Arg Lys Val
1 5 10

<210> 85

<211> 19

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
targeting peptide

<400> 85

Cys Ala Ala Lys Arg Pro Ala Ala Ile Lys Lys Ala Gly Gln Ala Lys
1 5 10 15

Lys Lys Lys

<210> 86

<211> 4

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Intracellular
targeting signal

<400> 86

His Asp Glu Leu
1

<210> 87

<211> 77

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
oligonucleotide

<400> 87

gcgatgacga cgataaggcc caaacggaga cctgtactgt tgcgcctcgt gaacggcaaa 60
actgcggatt cccggga 77

<210> 88

<211> 66

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
oligonucleotide

<400> 88

gttttgccgt tcacgaggcg caacagtaca ggtctccgtt tgggccttat cgtcgtcatc 60
gctgca 66

<210> 89

<211> 72

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
oligonucleotide

<400> 89

gtaacaccct ctcagtgcgc taataaaggc tgctgttttg atgacacggc acggggcggt 60
ccgtggtgct tc 72

<210> 90

<211> 72

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
oligonucleotide

<400> 90

gccccgtacc gtgtcatcaa aacagcagcc tttattagcg cactgagagg gtgttacttc 60
cggaatccg ca 72

<210> 91

<211> 49

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
oligonucleotide

<400> 91

tacccaata caattgacgt tccgcctgaa gaagagtgcg agttttaag 49

<210> 92

<211> 68

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic



Creation date: 09-03-2003
 Indexing Officer: ARAHMANYAR - ABDUL RAHMANYAR
 Team: OIPEScanning
 Dossier: 10062467

Legal Date: 01-29-2003

No.	Doccode	Number of pages
1	IDS	12
2	NPL	12
3	NPL	8
4	NPL	12
5	NPL	8
6	NPL	6
7	NPL	4
8	NPL	8
9	NPL	8
10	NPL	4
11	NPL	3
12	NPL	10
13	NPL	6
14	NPL	9
15	NPL	7
16	NPL	8
17	NPL	10
18	NPL	10
19	NPL	14
20	NPL	6
21	NPL	7
22	NPL	9
23	NPL	4
24	NPL	4
25	NPL	5
26	NPL	9

Total number of pages: 203

Remarks: